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EXAMINER	
PREVIL, DANIEL	

ART UNIT	PAPER NUMBER
2636	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/791,824	BODDY, TERENCE	
	Examiner	Art Unit	
	Daniel Previl	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 3-4-04 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because fig. 1-fig. 3, and fig. 7 are too dark, thereby make reading difficult. Also handwritten drawings are not acceptable. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

2. Claims 1-24 are objected to because of the following informalities: claim 1, line 2, delete "the" before "driver" and substitute by ----a----- and claim 1, line 4, delete "sensors" and substitute it by ------sensor-----. Claim 13, line 2, delete "the" and substitute it by ---one---. Claim 16, the phrase "capable of" in line 6 is not a positive limitation but only require the ability to so perform. Claim 18, the phrase "may be " in line 2, is not a positive limitation but only require the ability to so perform. Claim 21, the phrase "may" in line 9 is not a positive limitation but only require the ability to so perform. Claim 23, the phrase :able to" in line 3 is not a positive limitation but only require the ability to so perform. Appropriate correction is required.

Claims 2-11, 14-15, 17, 19-21, 24 are objected for the same reason since they depend from objected claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Paranjpe (US 6,339,369).

Regarding claim 16, Paranjpe discloses an object proximity detection system for a vehicle (col. 5, lines 9-13) including: at least one proximity sensor unit fittable to an exterior portion of a vehicle (col. 5, lines 9-25); wireless transmitter means (remote unit 4 transceiver module 140) (fig. 3; col. 6, line 28) in communication with proximity sensor (collision warning 2) (fig. 1, ref. 2) to receive signals from sensor and transmit signals in accordance with the detection by the sensor (col. 4, lines 25-42), and at least receiver unit (base unit 3 transceiver module 40,) (fig. 2; col. 5, lines 55-64) capable of receiving wireless transmissions from transmitter (col. 4, lines 25-42; col. 6, lines 24-29; col. 10, lines 46-51) and indicating means communication with the receiver to provide a driver with an indication of objects sensed by the sensors as transmitted by the transmitter and received by the receiver (col. 4, lines 25-42); and wherein sensor

and transmitter are incorporated in a housing for fitment to a vehicle together (fig. 2; fig. 3).

Regarding claim 17, Paranjpe discloses housing is substantially secure against the ingress of water in use (remote units contained in a sealed package to withstand harsh environment conditions) (col. 5, lines 19-20).

Regarding claim 18, Paranjpe discloses housing includes a front plate on or in which at least one sensor may be mounted (fig. 1).

Regarding claim 19, Paranjpe discloses transmitter (remote transceiver 4) is enclosed in housing behind a front plate (fig. 1).

Regarding claim 20, Paranjpe discloses housing includes fitment means for fitment to a bumper of a vehicle (fig. 1).

Regarding claim 21, Paranjpe discloses one wire for connection to a power source extends from housing for attachment to a power source on vehicle (fig. 2-fig. 3; col. 6, lines 62-64).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (US 6,400,308) in view of Paranjpe (US 6,339,369).

Regarding claim 1, Bell discloses a system for detecting an object while reversing a vehicle and providing an indication to the driver of the proximity of the object (col. 9, lines 2-10) comprising: sensor means for detecting an object in the path of a reversing vehicle (col. 9, lines 2-10, and lines 13-20).

Bell discloses the limitations above but fails to explicitly disclose radio frequency transmitter means in communication the sensor means for transmitting a signal representative of the distance of the object detected by the sensor means from the vehicle, and radio frequency receiver means for receiving the signal from the transmitter and generating a visual and/or audible indication to the driver of the proximity of the detected object relative to the vehicle, wherein at least one of the transmitter means and receiver means is detachable for transfer between vehicles.

However, Paranjpe discloses radio frequency transmitter means (remote unit 4 transceiver module 140) (fig. 3; col. 6, line 28) in communication the sensor means for transmitting a signal representative of the distance of the object detected by the sensor means (collision warning 2) (fig. 1, ref. 2) from the vehicle (col. 4, lines 25-42), and radio frequency receiver means (base unit 3 transceiver module 40,) (fig. 2; col. 5, lines 55-64) for receiving the signal from the transmitter and generating a visual and/or audible indication to the driver of the proximity of the detected object relative to the vehicle (col. 4, lines 25-42; col. 6, lines 24-29; col. 10, lines 46-51), wherein at least one of the transmitter means

and receiver means is detachable for transfer between vehicles (col. 5, lines 1-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Paranjpe's RF system for transmitting a signal representative of the distance of the object detected and detachable system in Bell in order to improve signal fidelity thereby preclude accidents from happening as taught by Paranjpe (col. 6, line 61).

Regarding claim 2, Bell discloses a visual indication is provided by a plurality of lights which are progressively illuminated to indicate a reduction in the distance between the object and the vehicle (col. 10, lines 52-67).

Regarding claim 3, Bell discloses an audible indication is provided by intermittent beeps (inherently intermittent between a loud warning when the target is at a close range and quiet warning when the target is a medium range) which become progressively faster to indicate a reduction in the distance between the object and the vehicle (col. 11, lines 1-3).

Regarding claim 4, Bell discloses all the lights are illuminated at a predetermined distance between the object and the vehicle (all of the diodes 312-315 are illuminated when a close target is detected) (col. 10, lines 59-60).

Regarding claim 5, Bell discloses the beep becomes a continuous tone at a predetermined distance between the object and the vehicle (warning device 320 sounds a loud warning when a target is detected at a close range) (col. 11, lines 1-2).

Regarding claim 6, Bell discloses the transmitter (radar taillight assembly) is detachable for changing the mounted position (col. 4, lines 51-57, col. 7, line 67 and col. 8, line 1 and lines 35-40).

Regarding claim 7, Bell discloses the transmitter (radar sensor 202) is mountable on a vehicle (col. 43-45).

Regarding claim 8, Bell discloses a receiver is mountable on the front of the vehicle (display 1314 mounted in the cab) (fig. 13 A; col. 23, lines 19-22).

Regarding claim 9, Bell discloses a switch on and monitor the distance to objects when reverse gear is detected (col. 7, lines 41-45; col. 9, lines 5-10).

Regarding claim 10, the examiner takes the official notice that "objects within a 1m range of the rear of the vehicle" is well known in the art.

Regarding claim 11, Bell discloses the transmitter is connected to the light circuit (fig. 3; col. 10, lines 30-56).

Regarding claim 12, Bell discloses all the limitations in claim 1 but fails to explicitly disclose a cigarette lighter socket.

However, Paranjpe discloses the receiver connectable to a cigarette lighter socket (col. 5, lines 52-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Paranjpe cigarette lighter in Bell in order to power the receiver wherein better signals can be provided to the driver, thereby preclude accidents from happening as taught by Paranjpe (abstract).

Regarding claim 13, Bell discloses a reversing aid for fitment to a vehicle (col. 9, lines 5-10) comprising: at least one sensor for fitment on or adjacent an exterior of the vehicle to sense the proximity of an object (fig. 2; col. 9, lines 4-10).

Bell discloses all the limitations above but fails to explicitly disclose a wireless transmitter in communication with sensor to receive a signal representative of the proximity from sensor and transmit a further representative signal; a receiver to receive representative signal from transmitter; and indicating means in communication with the receiver to provide a driver with an indication of the proximity of an object in accordance with the signal received by receiver.

However, Paranjpe wireless transmitter means (remote unit 4 transceiver module 140) (fig. 3; col. 6, line 28) in communication with sensor to receive a signal representative of the proximity from sensor (collision warning 2) (fig. 1, ref. 2) and transmit a further representative signal from the vehicle (col. 4, lines 25-42), and a receiver means (base unit 3 transceiver module 40,) (fig. 2; col. 5, lines 55-64) to receive representative signal from the transmitter (col. 4, lines 25-42; col. 6, lines 24-29; col. 10, lines 46-51) and indicating means in communication with receiver to provide a driver with an indication of the proximity of an object in accordance with the signal received by receiver (col. 4, lines 25-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Paranjpe's RF system for

transmitting a signal representative of the distance of the object detected and detachable system in Bell in order to improve signal fidelity thereby preclude accidents from happening as taught by Paranjpe (col. 6, line 61).

Regarding claim 14, Bell discloses all the limitations in claim 13 but fails to explicitly disclose a wireless transmitter is demountable from a fixing to vehicle.

However, Paranjpe discloses a wireless transmitter (remote units 4) (fig. 1, ref. 4) is demountable from a fixing to vehicle (fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Paranjpe's demountable wireless transmitter in Bell in order to quickly and easily retrofit sensor to existing vehicles thereby alerting operator to potential obstacles in the vicinity of the vehicle during operations such as reversing, parking and driving in stop and go traffic conditions as taught by Paranjpe (col. 1, lines 7-11).

Regarding claim 15, Bell discloses all the limitations in claim 13 but fails to explicitly disclose demountable fixing comprises a mountable bracket attachable to a vehicle to receive transmitter to accommodate connection between transmitter and at least one signal carrying communication path from at least one sensor.

However, Paranjpe discloses demountable fixing comprises a mountable bracket attachable to a vehicle to receive transmitter to accommodate connection between transmitter and at least one signal carrying communication path from at least one sensor (fig. 1).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Paranjpe's demountable wireless transmitter in Bell in order to quickly and easily retrofit sensor to existing vehicles thereby alerting operator to potential obstacles in the vicinity of the vehicle during operations such as reversing, parking and driving in stop and go traffic conditions as taught by Paranjpe (col. 1, lines 7-11).

7. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paranjpe (US 6,339,369) in view of Huffman (US 6,217,200).

Regarding claims 22-24, Paranjpe discloses an object proximity detection system for a vehicle (col. 5, lines 9-12) including: at least one proximity sensor (ultrasonic distance sensors, the front face of the remote units 4) (fig. 1) for attachment to an exterior of a vehicle (col. 5, lines 9-24); at least one transmitter unit (remote units 4) in communication with sensor to transmit signals in accordance with object detected by sensor (col. 4, lines 25-42; col. 5, lines 9-24); at least one receiver unit (base unit 3 transceiver) to receive signals from transmitter (col. 4, lines 25-42) and one indicating means to provide a driver within indication of objects sensed by sensor (col. 4, lines 25-33).

Paranjpe discloses all the limitations above but fails to explicitly disclose receiver unit includes switching means such that indicating means provide a driver with an indication of objects sensed by sensors on a towed vehicle and discontinue indicating objects sensed by proximity sensors on the towing vehicle.

However, Huffman discloses receiver unit includes switching means such that indicating means provide a driver with an indication of objects sensed by sensors on a towed vehicle and discontinue (light assembly may be separately molded or assembled and installed) indicating objects sensed by proximity sensors on the towing vehicle (fig. 1; col. 4, lines 17-35 and 53-62.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Huffman in Paranjpe. Doing so would prevent drivers of following vehicles from misjudging the distance between them and the vehicle, thereby preclude accidents from happening as taught Huffman (col. 7, lines 20-25)

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Davis, Jr. (US 5,666,103) discloses a wireless safety indicator control system for towed vehicles.

Strenglein (US 3,732,555) discloses a selective intrusion alarm.

Shisgal et al. (US 5,574,426) discloses obstacle detection system for vehicles moving in reverse.

Sparking (US 6,133,826) discloses a method and apparatus for detecting objects.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is (571) 272-2971. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Previl
Examiner
Art Unit 2636

DP
March 25, 2005.

JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600